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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,115	12/18/2001	Denis Penninckx	Q67604	5832

7590 08/26/2003

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EXAMINER

SONG, SARAH U

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/020,115

Applicant(s)

PENNINCKX ET AL.

Examiner

Sarah Song

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9 is/are rejected.
- 7) ☒ Claim(s) 4-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1201. 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The prior art documents submitted by the applicant in the Information Disclosure Statement filed on December 18, 2001 have all been considered and made of record (note the attached copy of form PTO-1449).

### ***Drawings***

3. This application has been filed with four (4) sheets of drawings, which have been approved by the Examiner.

### ***Claim Objections***

4. Claim 3 is objected to because of the following informalities: in line 3, insert -to— before “said”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Romagnoli et al. (WO 00/60776, provided by the applicant). Romagnoli et al. discloses a differential group delay generator including a polarization splitter 207, which has an input for receiving an input

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optical signal 1000 and is adapted to split said input signal into first and second components having orthogonal states of polarization, and an adjustable delay system for receiving said first component and including an adjustable phase modulator 2000 adapted to apply phase modulation to the carrier wave of said first component to supply an intermediate signal carried by a modulated center wavelength, and a delaying dispersive component 204 having chromatic dispersion and disposed to receive said intermediate signal and supply a delayed signal. See Figure 4. Said adjustable delay system further includes a controller 24 of said phase modulator adapted to adjust the depth of phase modulation applied to said first component as a function of a set point. Said input signal is an RZ binary signal (page 36, line 22) with a particular bit period (inherent) and said controller is adapted to send commands said phase modulator periodically with a period equal to said bit period (page 40, line 6 through page 41, line 7). Romagnoli et al. additionally discloses a sender terminal 10 sending data in the form of a polarized optical signal, an optical transmission link 30, and a receiver terminal 40, said polarization dispersion compensator including a polarization controller 540, adjustable differential group delay generator means 200, said controller and said adjustable differential group delay generator means being interleaved between said transmission link and said receiver terminal in that order, and control means for controlling said polarization controller (page 61, lines 10-19) and said differential group delay generator means (see above), which differential group delay generator means conform to the differential group delay generator noted above.

***Allowable Subject Matter***

7. Claims 4-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not disclose or reasonably suggest a differential group delay generator further comprising a second dispersive component to supply the phase modulator a precompensated component derived from said first component, said second dispersive component having a chromatic dispersion of opposite sign to the chromatic dispersion of said delaying dispersive component and whose absolute value is not greater than that of said delaying dispersive component, as claimed in claim 4, or said second dispersive component having a chromatic dispersion such that the cumulative chromatic dispersion of said optical link and said second dispersive component is of opposite sign to the chromatic dispersion of said delaying dispersive component, and the absolute value of said cumulative chromatic dispersion being not less than that of said delaying dispersive component, as claimed in claim 6. Claims 5, 7 and 8 would be allowable as depending from claim 4.

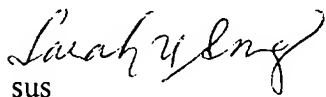
***Conclusion***

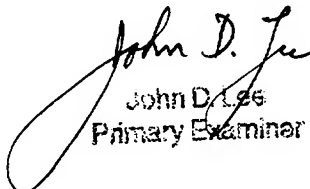
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Moeller et al. disclose prior art polarization mode dispersion compensators comprising phase modulator 408 and delaying dispersive units 406. Bruyere et al. discloses a prior art PMD compensator comprising a polarization controller, a differential group delay

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generator, and a means for controlling both. Jacob discloses a prior art differential group delay compensator comprising a wavelength translator and a dispersion compensating fiber.

10. Any inquiry concerning the merits of this communication should be directed to Examiner Sarah Song at telephone number 703-306-5799. Any inquiry of a general or clerical nature, or relating to the status of this application or proceeding should be directed to the receptionist at telephone number 703-308-0956 or to the technical support staff supervisor at telephone number 703-308-3072.

  
sus

  
John D. Lee  
Primary Examiner